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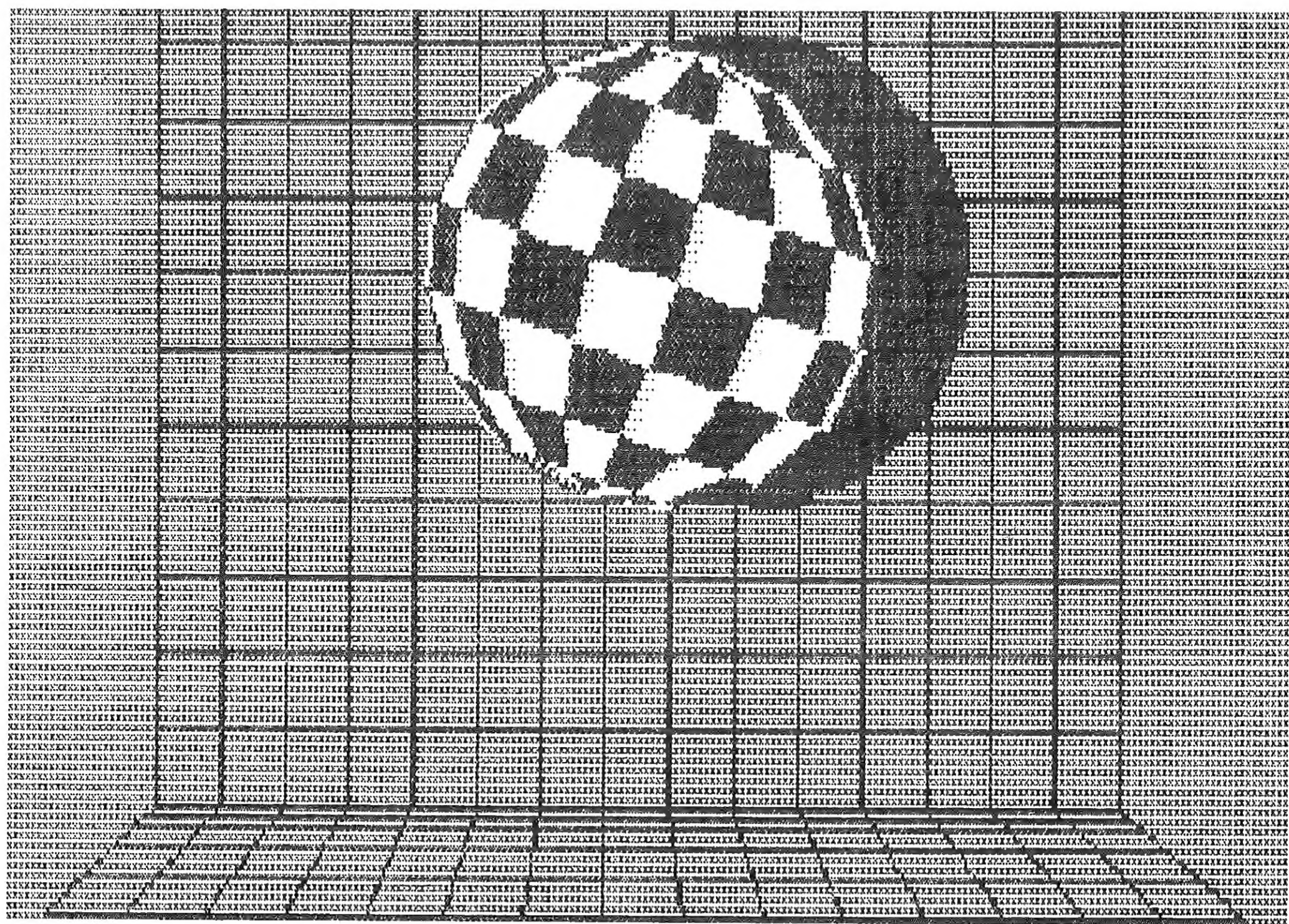
WORKBENCH

FOR THE COMMODORE AMIGA USER

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Next Meeting
Sunday, September 7th at 2pm

Please note the change of date!

Amiga User's Group, PO Box 109, North Balwyn, 3104, Victoria, Australia

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AMIGA™ Users Group

P.O. Box 109, North Balwyn, Victoria, 3104

The Editor's View, by Peter Jetson

Well, here we are with our fourth issue. The club is growing in leaps and bounds, already we have over 200 members, and it felt like every one of you came to our last meeting! Overcrowded was one way to describe it; I can't think of a superlative to suit. Only this next meeting will tell whether it was the guest speaker that drew the crowds, or if we'll have to search for a far larger meeting venue.

Speaking of the next meeting, you'll notice that it is being held one week earlier than usual. This is because another users group (which shall remain nameless (but is really SCUA, who seem to do this to almost every other group that meets at Burwood!)) changed their September meeting date from the 7th to the 14th, because the 7th is Father's day. We hadn't reserved the rooms for September at that time, so their booking displaced us. Since no-one at the last meeting objected to moving our meeting from the 14th back to the 7th, we have effectively changed dates with SCUA.

Just getting that straight: Our September meeting will be held on the 7th, not the 14th. After that, we'll be back to our normal 2nd Sunday of each month.

As I've explained to some people, I only write editorials for two reasons: One, I've got something to get off my chest. Two, I don't have enough articles to fill the newsletter. This month, both reasons are valid: The thing I've got to get off my chest is the fact that I don't have enough articles!

Sometimes, you see something so well said that you are hard pressed to find any other way to put it. This following item (from **The Amigan, Apprentice and Journeyman**), is a case in point:

"You are the gurus; **you** are the sachems, the wise men, the source of all wisdom on Amiga. This journal will be precisely what **you** make it. If **you** ask good questions, if **you** tell others what you know, we'll have a good journal. If you sit on your arse and expect others to do all the work, you'll get nothing in the end (yeah, we mean it **both** ways).

We have no professional staff, no paid authors, no telephone line to the pundit department in paradise, where the answers to all Amiga questions are kept. What we do have is **you**. The magic begins when **you** report good and bad software, **you** tell other Amigans about good and bad software, **you** report what works and what inconveniently fails.

The Amiga is far too complex for any one man or woman to cover. The more specialists we have who can comment wisely on their specialities, the better this journal will be. So, stand up. Let us know what that speciality is; we'll consult you -- and welcome any articles you write."

I'm sure that after reading that, you're going to be revved up enough to swamp me with articles for the next newsletter. Aren't you?

An Afternoon with Tony Cuffe by Eric Salter

At the last Amiga Users Group meeting, we had the pleasure of the company of Tony Cuffe, the National Project Manager of Commodore Australia. He spoke to us about Commodore, what's going to happen, new products, release dates and he painted a picture of the future of the Amiga and the new Amiga 2500.

Tony first set the scene about Commodore in Australia, and explained how they are a subsidiary of Commodore International. The Amiga is not controlled by the usual channels of other Commodore products. The Amiga itself was engineered by about 40 people on the west coast of the US and is manufactured in bits and pieces in Japan, Germany and soon in Taiwan where Commodore believes it will obtain better quality control.

Marketing of the Amiga in Australia will be different to that in the US where they tended to adopt a 'specific market' approach, which seems to have failed. In Australia, Tony hopes to approach the market in a 'touch and feel' manner, where if you show enough of the machine to people and let them play with it, the Amiga will find its own niche. This strategy has led to more sales per capita in Australia than in the USA.

Tony also noted that Australians tended to be the development leaders, mostly due to our remoteness and having to rely on our own resources and helped along by the Commodore-Amiga 'Development Scheme'. Tony sees that the priority in marketing needs to be directed toward the 'need to buy' or how a buyer justifies the purchase of the machine. He says that (projecting 6-12 months on), 50% of the market of the Amiga will be held by 'Desk Top Publishing' applications, 5-10% by Computer Aided Design and later Computer Aided Manufacture, and finally by IFF supported graphics, music, text and databases. All these he sees as being supported by LANS or local area networking based on a 'Master File Server' concept (i.e. a hard disk supporting interchange between applications/machines/users).

One of the first products based on this concept will be the database management package - 'Aquisition', which will be supported by Commodore, to be released in about mid September/early October and cost about \$500. This package seems quite impressive! Some of the specs quoted were - 10 million characters per field, 1 billion fields per record, and unlimited records per file. These seemingly gargantuan numbers are because it will support the new CD-ROM technology as part of Amiga's open architecture. Other features will be the ability to support the IFF file format so that visual, sound and text data may be utilized by the database and by other programs such as spreadsheets/report generators. The file overhead is reduced considerably by the use of data compression algorithms which will enable a 25 Kbyte IFF file to be stored in 8 Kbytes. Aquisition has a supporting language called 'ACOM' which is dBaseIII-like, with 250 keywords, the ability to read dBaseIII files and import its command files. It is compatible with AmigaBASIC, Pascal, and C, and will allow fancy stuff such as riff generation/storage for musicians.

On the Desk Top Publishing scene, a package called 'VISAwrite' from a British company, will probably be available in about September and cost approx. \$250. This is a professional package, with the ability to generate its own fonts and communicate with a Laser Printer. It will be IFF compatible. VISAwrite is intended to be a fancy word processor with some Desk Top Publishing features. An expanded package, for full Desk Top Publishing, will be available about January 87 and will be totally compatible with Aquisition and will be able to do report generation, support Macros and will probably have a spelling checker and Thesaurus on-line.

The products that Commodore will directly support will be along the lines of those mentioned above, and things like word processors, video generators, graphics tools etc, - the 'Productivity Area'. Things like games and such will not be directly supported. A good move - and one that was fervently applauded by the audience at the meeting, was the fact that Tony wants to sell most packages at about half the price of the equivalent on the Macintosh. Other interesting news was that Commodore plan price reductions in software in about September hopefully including the Deluxe series, and with Deluxe Music Construction Set on the way at the end of August, this is quite welcome. Commodore also plan to sell a machine only version of the Amiga, without monitor, so that people who need to buy a long persistence monitor won't have the added expense. Of interest also is that there have been, officially, 3200 units sold in Australia.

Tony then went on to talk about specific topics: Hardware, like RAM expansions and Hard Disks will not be supported by Commodore for the moment, as the present 'Comspec' RAM add-on and the Tecmar and Microforge hard disks have too many problems. The Tecmar effectively closes the architecture of the system and no further expansion is possible; the Microforge is too slow. A promising direction comes from a company called 'Byte by Byte' (or possibly our own developers?). At the moment, Tony's opinion is that you don't buy any hardware add-ons.

Sidecar will be available at the end of August - rrp will be \$995. It will be a standard 3 slot IBM-clone with a built in 360K 5.25" floppy and the possibility of an add-on 720K 3.5" drive. Tony expects the Sidecar to fizzle out about the middle of next year. The 'Transformer', the software package available in the States to make your machine act like a wounded IBM and run the 10 most popular IBM packages, will not be supported or released by Commodore in Australia.

The saga of the NTSC/PAL continues: It seems there are 5 different versions of the Amiga 1000 and this due to differences mainly in the version of 'Agnus' (the video controller chip) that it is running.

Amiga 1000 version (not Kick version)	Volts	Description	Released
1.1	110v	Full NTSC	The American Ami
1.2	240v	Full NTSC	1st Aust Amiga
1.3a	240v	PAL in NTSC out	Most have this
1.3b	240v	PAL in ?out	Few have this
1.4	240v	PAL in PAL out	End of August

The version 1.4 machines, which should be available by the time you read this, are the full PAL Amigas. People interested in using the Amiga for video applications will need this version, most of us won't. If you want to mix the video output of your Amiga with another video signal (an example might be titles for video tapes or other special effects), you might want to think about selling your present Amiga and get one of these new versions. There will be converters available for generate PAL signals from your present Amiga's RGB outputs; these will solve most of the problems for around \$170.

The new version of Workbench (1.2) will use the extra 56 lines of screen available on the newer machines from 1.3 up. It has been rumoured that after the operating system has all the bugs out of it, it will be put into ROM, which means that we'll no longer have to 'kickstart' our Amigas. There's a short preview of version 1.2 elsewhere in this issue.

After the Amiga 1000, what next? Watch out for the Amiga 2500. It will be available to selected developers about September, available to the public about January next year. Cost - about \$4000 without monitor. What you get though is worth it! (I'll be looking for a buyer for my Amiga 1000!). The concept as Tony puts it, is based on a 4x3 slot bus. The new machine will have 4 expansion slots for the Amiga and 3 for the Sidecar which will be built in. It will have a 3.5" drive and a 5.25" built in with the possibility of another 3.5" if space permits. It will be based on either the 68010 or 68020, the final specs aren't locked in, but it will have at least 1 Mbyte of RAM and 640 x 400 non-interlaced mode + all the others. It will run UNIX System V, will have built in Memory Management, with 9 Mbytes addressable. It will have a Math co-processor (68881) and sidecar will be running either the 8087 or 80286 with math co-processor. There may be a 20 Mbyte hard disk option and all this will be about the size of your average IBM clone. Present Amiga owners have no need to worry, though, the 2500 will be upward compatible with your present machine as far as software is concerned.

So that's what you missed! There were hundreds of people there, our biggest turnout yet. Why not come along to the next Amiga Users Group meeting and learn. Remember, you heard it first from the Amiga Users Group.

Sending Escape Codes in AmigaBasic
by Carolyn Schepchner, CBM Amiga Technical Support

As you've probably realised, AmigaBasic eats most console ESC sequences and instead gives you the little box.

But you CAN send the standard ISO escape sequences to the printer from AmigaBasic (See RKM (Rom Kernel Manual) Vol. 2 printer.doc for ISO sequences). Basic's printer device (LPT1: which is used by LPRINT) is flakey. It tends to munch on initial escape sequences. If you must use LPRINT, you can often get the ESC sequences thru by printing something (like a space) prior to the sequence.

But there's a better way. Open a PRT: file and PRINT# to it. This example prints "hello" in NLQ (Near Letter Quality) mode and then in normal mode.

(Note: DEN2 (NLQ on) = ESC[2"z DEN1 (NLQ off) = ESC[1"z)

```
OPEN "prt:" FOR OUTPUT AS #4
esc$ = CHR$(27) + "["
den2$ = esc$ + "2" + chr$(34) + "z"
den1$ = esc$ + "1" + chr$(34) + "z"
test$ = "hello"
PRINT#4, den2$; test$
PRINT#4, den1$; test$
CLOSE 4
```

Of course, your printer has to support NLQ for this to work. Other sequences are possible, see the RKM for a list of printer control sequences.

You can test the sequences from CLI. Try typing the following. Everything typed between the first and last line will go to prt:. (Note: <RET> is the return key, <ESC> is the escape key)

```
copy * to prt:<RET>
<ESC>[2"zhello<RET>
<ESC>[1"zhello<RET>
CTRL-\                    (Note - Hold CTRL and type \)
```

With my MPS-1000, this prints "hello" twice, first in NLQ then normally.

Rumours

Coming from Commodore: A new **Amiga chip set** that can address **2Mbyte of memory**, instead of the 512k that they address now. If you look at the Amiga's memory map, you'll see a space of 1.5Mbyte that is "reserved for future use". Well, now you know what its reserved for. Commodore has shown some of its reps a **DMA SCSI hard disk controller**, with the warning that "we are not committed to this as a product". So, we may see it, we may not.

Little Known: Current Amigas are shipping with a **new keyboard**. This keyboard does not have the "parallelogram problem" that the old keyboard has. Try this test: Hold down the A, Z and X keys at the same time. If you also get an S, you have an old keyboard.

Workbench 1.2: Latest word on **release 1.2 of the system software** is sometime around September in the USA, probably a month or two after that for here. A few locals seem to have copies of the "beta test" versions, and they all seem to be fairly pleased. When it does come out, you won't be disappointed. Faster directories, less crashing, CLI paths, and lots more. See the **1.2 preview article** in this issue for more details.

Commodore-64 Emulator: An American company has developed a **Commodore-64 emulator!** It uses the 1541 or 1571 disk drive, and runs at full speed (I know that doesn't really say much!). It is a hardware/software hybrid. Should be available in the USA by the time you read this.

Memory Expansions: Look for Alegria, a **512k memory expansion board** from Access Associates. Price is \$379 in the USA, and you can upgrade it yourself with denser RAM chips and end up with a 2Mbyte board for about \$700 US. Local prices tend to be about double the US prices, given our "banana republic" dollar.

TitBits: ABSOFT releases a **Basic compiler** for about \$300 US. Manx releases a **new version of Aztec C** which is compatible with V1.2 of the Amiga system software. How about an Amiga text editor (tentatively titled **Deluxe TxEd**) which will compete with such feature-packed packages as Microsoft Word, from MicroSmiths. Metacomco will soon have an **Amiga APL**, as well as a "toolbox" disk, which will contain support to use the serial device as a terminal, an enhanced CLI, pipes and more. Yet another Amiga terminal package- this one is called **Telecraft**. Its two claims to fame are that it supports **132 columns**, and the screen updates are fast; 9600 baud feels like 9600 baud, not 1200 baud. The hardware Gurus at Amiga looked at the "final" prototype of the **Genlock**, and after much scrutiny, decided the resulting picture quality wasn't quite good enough, so they're re-designing it. That probably means a release date of October/November now. Meanwhile, the folks at A-squared have their **Live!** board jumping through hoops. They are generating ten HAM images every second! Thats almost LIVE! No word yet on availability. Seems that some dealers in the New England (USA) area are offering what they call a "**bird-dog deal**". If you buy a machine at his place, and then drag a friend in to buy an Amiga, you get 50 bucks! Some dealers are giving cash, some are giving merchandise credit. Perhaps its an idea that might catch on locally. Motorola has announced a 50% price cut on their **68020 and 68881** chips, so maybe more people will opt to build "**Turbo**" Amigas, with dramatically increased performance. CBM is trying to convince the "big three" auto makers in Detroit that they should standardise on the Amiga for inventory and parts ordering. Not only would that mean on the factory floor, but all the companies' distributors and dealers would have Amigas too. If it goes through, it'd be very good for Amiga sales. Some people seem to have a "**Toolbox**" disk from Commodore, containing, amongst other things, a **Font Editor** that makes creating character fonts a simple task. Boldface and Italics can be generated automatically from the base font. A **database package** is due shortly from a company with the unlikely name of "**The Other Guys**". Strange but true! New versions of **Scribble!** and **Analyze!** are now available in the USA; the Scribble! update is free, Analyze will cost. **Epson** has been showing a new (under \$500 US) **color printer** lately, which will probably replace the discontinued **JX-80**.

Amiga Circuits

In the July 1986 issue of **Amazing Computing**, there is an advert from an American company advertising Amiga Schematics for the price of \$24.95 US. While I can't vouch for either the company or their products, here's the details:

Cardinal Software
14840 Build America Drive
Woodbridge, VA 22191
Phone (703) 491 6494

To call them from here, dial 0011 1 703 491 6494. America is about 15 to 18 hours behind us, so you'll have to call between about midnight and 7am to get them during business hours on the **previous** day. If anyone decides to try them out, please write something for the newsletter about the results.

Buying Overseas

While we're on the subject of buying things from America, here's a few hints. At the current exchange rates, you can **double** the US price, then add a few bucks for **AIRMAIL** postage. You **must** insist on Airmail, since surface mail can take up to three months to get here! Even airmail takes about 10 to 14 days from the time they send the parcel.

The next problem is local customs. If you are lucky, postal customs will just let your parcel through. If you aren't lucky, they can charge you duty and sales tax, which might double your cost again. Now that software attracts a 20% sales tax (courtesy of the Budget), bringing software in from the USA is not as attractive as it used to be. Some computer hardware, on the other hand, may attract only 2% duty. Depending on exactly how the item is described on the customs declaration, you might pay anywhere from 2% to 30% or so duty on computer items.

Customs have a rather unique way of calculating how much money you are going to contribute to general revenue. First, the duty is calculated on the item's value. Next, 20% is added to that price (to allow for the profit margin that a re-seller would have to add), then the sales tax is calculated on that amount. Here's an example, for an item of software that cost US\$50:

US\$50 converted to Aust \$ at .60 exch rate =	\$83.34
Duty at 20% =	\$16.67
Sub-total =	\$100.01
Add 20% for margin to make \$120.01	
20% sales tax on \$120.01 is \$24.00	
Sales tax =	\$24.00
Total cost =	\$124.01

On top of that, the sender probably charged you about US\$15 for airmail postage, or \$25 local currency. You don't pay duty or tax on freight. That brings the worst case amount to \$149.01. Not that much of a good deal, was it.

The **best** you could hope for would be if customs just let your parcel through. That seems to happen most of the time, especially for articles sent to a private address, as opposed to a business address. Then, you'd only be up for US\$50 cost plus US\$15 postage. That works out to be \$108.34 in our local money.

You might think that you could reduce the freight charges, and maybe get a quantity discount by purchasing a few items at a time. Sounds attractive, but you've greatly increased your chances of having the parcel stopped by postal customs, since the declaration on the outside of the box will indicate multiple items, obviously not for personal use only.

So, do your figures, and count on the worst case. If your purchase still sounds good, go for it. If your parcel gets though customs without duty and tax, you'll be way in front. If it doesn't, at least you won't be hit by a surprise bill.

Oh yeah, I forgot to tell you about how to pay for things overseas. Most convenient is a Visa or Master Card. Just ring the company and order it over the phone. That way, you should have your goods in about 2 weeks. The other alternative is to go to your bank and get a Bank Draft in US dollars (costs about \$5 per draft). Post it with your order (remember to send it airmail!), and with 2 weeks to get there and two weeks to get back, you'll have your goods in a month or so. Don't forget to add extra for postage if you are sending a draft.

Drafts have the advantage that you buy overseas currency at a fixed rate, and currency movements don't affect you. When you buy with a credit card, you don't have any control over when the exchange rate is calculated. If you ring your order through one day, and the Australian dollar falls in the next week or so, you'll be unsure of exactly how much the goods cost you until get the bank statement.

I've been buying software and hardware from overseas for about 8 or 9 years now, and I've yet to be ripped off. Still, its possible, and there's not much you can do about it from this far away. Best bet is to buy **only** from companies who run regular adverts, or from companies that friends have purchased from already. If you do have problems, send a (nicely-worded) letter to both the company and the magazine in which you saw the advert, outlining clearly the details of the transaction and your problem. Usually, that's enough to settle any problems. If you purchased with a credit card, you might also try calling your bank. Maybe they can stop payment to the seller.

AMIGA Dealers:

Why not take out an advert in

AMIGA WORKBENCH

An advert this size costs only

\$20

Other sizes (from supplied artwork)

Half Page:	\$40
Full Page:	\$70
Double page:	\$120

AMIGA Users Group
PO Box 109, North Balwyn, 3104

System Software Version 1.2 Preview

Presented below is a preview of the next release of the Amiga's operating system software. This information is based on the Beta V pre-release version, and may not be exactly the same as the final release version.

Intuition

- There are now Amiga-key shortcuts for selecting the Retry and Cancel gadgets in Autorequest requesters. To select Retry, hold down the left Amiga key, then with the key still down, press the B key. To select Cancel, hold down the left Amiga key, then with the key still down, press the V key.

Workbench

- When you drag an icon, you see a copy of the icon move; there is no longer a "drag Pointer."
- If you or a program you're using creates a RAM disk, an icon for it appears on the Workbench. (To learn about RAM disks, see the AmigaDOS Manual.) Once created, the icon for the RAM disk remains on the screen until you reset your Amiga.

Adding to Your Amiga

- You can now use 5-1/4" disk drives with your Amiga 5-1/4" disks can be used as limited-capacity Amiga disks. To install a new disk drive, see the description of the CLI mount command in "New Information for the 1.2 AmigaDOS User's Manual" that follows.

Preferences

- You now change settings for serial communications by selecting the Change Serial gadget. In the window that appears, there are several gadgets. You select the gadgets that correspond to the requirements for your application:

Baud Rate
Buffer Size
Read Bits
Write Bits
Stop Bits
Parity
Handshaking
- The printer choices displayed in the Select Printer window are determined by which printer drivers are on the Workbench disk.
- The default printer is now Generic.
- Several additional printers are now supported:

Okidata* Microline* 92
Okidata* Microline* 192
Okidata* Microline* 292
Apple ImageWriter* II
- Workbench Interlace gadget: Changing the Workbench Interlace setting to On doubles the number of horizontal lines that make up the Workbench screen. This gives you 400 lines in NTSC, 512 lines in PAL.
- The clock in Preferences now advances once a minute while you have Preferences open.
- To print graphics on any dot-matrix printer, you must select the Custom gadget under the words Paper Size in the Change Printer window.

Notepad

- You can make lines of text end at word boundaries by choosing the new Word wrap item from the Format menu.
- There is a new menu: the Edit menu. To cut text and put it on the Clipboard, first point to the start of the text you want to cut and double-click the Selection button, then point to the end of the text and double-click the Selection button again. The selected text is highlighted. To cut the highlighted text, choose Cut from the Edit menu.
- You can open the Notepad without loading fonts from disk.
- You can specify a default font for the Notepad.
- You can specify a default font for a note.
- You can now change fonts within a note.
- There are now Up and Down Scroll Gadgets at the right of the Notepad window.
- You can make an entire note appear in the same font by choosing Remove fonts from the Format menu.
- When you choose Save As, or when your note doesn't yet have a name and you choose save, the string gadget in the requester that appears is automatically selected.
- You can remove all style changes (changes from and to italic, bold, underline, or plain text) in a note by choosing Remove styles from the Format menu.
- The page number of the page that's displayed now appears in the Previous Page Gadget.
- You can now search for and replace text in a note.
- There are a number of new menu shortcuts. These shortcuts are shown to the right of the menu items. To use these shortcuts, hold down the right Amiga key then, with the key still held down, press the other key noted.
- Pressing the TAB key adds enough spaces to the left of the Text Cursor to move it to the next predefined tab stop. The first of the predefined tab stops is at the eighth character position to the right of the left margin; additional tabs stops are eight columns apart.
- The Notepad can now be run from the CLI. (See "New Information for the 1.2 AmigaDOS User's Manual" to learn how.)

Key maps

- There are now alternate key maps for keyboards used in countries other than the U.S.A.
- You can change the key maps by using the CLI setmap <mapfilename> command.
- the :devs/keymaps directory contains the names of the keymap files available on the Workbench disk; for the 1.2 Beta release, these files are d (Germany), f (France), gb (Great Britain), and i (Italy). The default key map (for the US) is kept in read-only memory.
- The key map in use affects all text in all windows.

PAL

- This release can be used with either PAL or NTSC; if your Amiga has the proper custom chip for PAL, you get 256 horizontal lines on the display (512 if you've chosen Workbench Interlace in Preferences) and the 50 Hz refresh rate required by the PAL standard.
- This release also detects the frequency of the AC line current (either 50 or 60 Hz) and automatically uses the right frequency when updating the Amiga's internal clock.

Information for 1.2 AmigaDOS User's Manual

New AmigaDOS commands

addbuffers <dr>: <nn> Adds <nn> buffers to the list of sector caches for drive <x>. Adding additional buffers can significantly reduce disk access time.

binddrivers This command is normally part of a startup script. It is used to bind device drivers found in the directory SYS:Expansion to add-on hardware that has been automatically configured by the expansion library. (For end users, this means that if icons for boards they've added are in the Expansion drawer on the Workbench, the boards will be configured automatically when they boot up.)

diskchange <dr>: Enter this command to inform AmigaDOS that you've changed disks in drive <dr>:. This is necessary for 5-1/4" disk drives that do not detect when a disk has been changed. An example: a requester appears that asks you to insert BigDisk in drive df2:. If df2: is a 5-1/4" drive, you must enter the command **diskchange df2:** before AmigaDOS will continue.

diskdoctor <dr>: Use to fix a corrupted disk in drive <dr>:.

format DRIVE <drivename>: NAME <diskname> [NOICONS] You can initialize any disk or disk partition with this command. Unless you include the NOICONS option, a Trashcan will be added to the disk you initialize. You can stop the command before it is finished by entering CTRL-C or, if you're formatting a floppy disk, by removing the disk from its drive.

The format program is in the directory SYS:system. The default search paths do not include this directory; to use the command, you must specify the path yourself or add SYS:system to the list of search paths.

mount <dr>: You use this command to make available a new device, such a disk drive. For the command to work, there must be an entry for the device in the file devs:Mountlist. This file includes a sample entry you can adapt for different devices.

path [show | <directoryname> [,<directoryname>]] [add <directoryname> [,<directoryname>]] The path command lets you add, see, or change "search paths": directories that AmigaDOS searches when looking for a program to execute. By default, AmigaDOS searches the current working directory, then the c directory for a program. Enter the path command without parameters to restore the search paths AmigaDOS uses to these defaults. Enter the path command with the show parameter to show the current search paths. Enter the path command with one or more directory names to specify search paths; these paths replace any paths you defined before. Enter path add followed by one or more directory names to add paths to those you've already defined.

settaskpri <priority> This command changes the priority of the CLI task from which it's run; in turn, tasks started from this CLI inherit its priority. The command does not check the value of <priority>; to avoid disrupting important system tasks, enter values from -5 to +5.

Changes to AmigaDOS commands

- **assign** and **cd** now print full directory names.
- **dir:** You can now halt output from the dir command by entering CTRL-C.
- **disked**, **diskcopy**, and **format** now work with any disks (including hard disks, disk partitions, and 5-1/4" disks) that have been mounted with the mount command described above.
- **execute** and **edit** now create a T: directory if it doesn't already exist.

Curses and Cursors

Have you ever TYPed a binary file and found yourself reading the alternative character set? (in ancient Egyptian hieroglyphics!) So, how do you get back to the normal Amiga character set? Just type control O (the letter o) at the next prompt. The alternate character set is turned on with a control N (Shift out), which sets the most significant bit of all the following characters, and it is turned off again with a control O (Shift in), which turns the most significant bit off again.

I've asked quite a few people about this problem, and it seems that almost everyone seems to have worked it out already. For those that haven't, now you know how to get back into "English" mode!

Before we go any further, get the CLI's l> on the screen and play with control N, which turns the alternate character set on, and control O which returns you to normal. Stop reading this, and go do it now, so you'll know what I'm talking about!

Now you're back, we can get to the interesting part: a way to get rid of the problem for good. AmigaDOS comes with a PROMPT command, which allows us to redefine the l> prompt into almost anything we want. If we include a control O in the prompt, the CLI will be reset to normal characters at every CLI prompt. Try this:

prompt "^O%n> "

^O is a convention that means control O, we use it because its concise. You wont be able to see the ^O when you enter it, but it really does get put into the prompt string. You can prove it by pressing ^N, which turns on the alternate character set. Type a few characters to prove it, then press RETURN for the prompt. If you now type a few characters, you'll see that you're back in the standard character set.

The %n part of the prompt command string is interpreted by the CLI as the current process number. If you leave it out, the CLI prompt will be > instead of l>. Unfortunately, %n is the only special character sequence that PROMPT accepts. It'd be real nice if we could somehow display the current directory name in the prompt, just like MS-DOS people can. Oh well, we can do lots of other things that they can't do!

We're not finished with the PROMPT command yet, though. Try this command:

prompt "*e[0;33;1m^O%n> *e[0m"

Don't read any further just yet, try it out first! To understand what it does and how, we'll break it down into pieces:

- | | |
|----------|--|
| *e | - Puts an escape character into the string |
| [0;33;1m | - An ANSI escape sequence to turn off all attributes (0); to set foreground to the fourth color (33); and to enable bold face characters (1) |
| ^O | - Our friend, control O |
| %n | - Displays the process number |
| > | - The prompt |
| *e | - Another escape |
| [0m | - ANSI escape sequence to turn all attributes off |

If you want to play with the PROMPT command, here's the details of the ANSI control sequence we used:

<csi><style>;<foreground>;<background>m

<csi> stands for Control Sequence Introducer, which is ESC [(in hex that's 1B 5B). In the PROMPT (and ECHO) command, we have to use *e to get an escape. Here's the details of the other parts of this ANSI sequence:

Style	Foreground	Background	Effect
0 Plain text	30	40	Default color
1 Bold face	31	41	White
3 Italic	32	42	Blue/Black
4 Underscore	33	43	Orange
7 Inverse video			

Finally, some examples to help you:

prompt `"*e[1;33;41m%n *e[0m"` Boldface, orange on white background
prompt `"*e[7m%n *e[0m"` Reverse chars, default colors

Any parameter not specified resumes its default value. That's why `"*e[m"` will always get you back to normal. If you play around, try not to set the same foreground and background colors, or you won't be able to see anything!

[Adapted from an article by John Toebes, published in the July/August 1986 issue of **The Amigan Journeyman and Apprentice**, which is available in the AUG library, assuming no-one else has beaten you to it!]

The Definitive Guide to Guru Meditations

Prepared by Joe Bostic

<--- Process structure pointer
^ ^ ^ ^ ^
| | | : System error or Alert object
| | | : General error
| | | : ROM system number
: Fatal error flag (High bit: 1 = Fatal, 0 = Recoverable)

ROM System #	General Error	Alert Object	System Error
1 Exec Library	01 No Memory	8001 Exec Library	0002 Bus Error
2 Graphics Lib	02 Make Lib	8002 Graphics Lib	0003 Address Error
3 Layers Lib	03 Open Lib	8003 Layers Lib	0004 Illegal Instr
4 Intuition Lib	04 Open Device	8004 Intuition Lib	0005 Divide by zero
5 Math Library	05 Open Resource	8005 Math Library	0006 CHK Instruction
6 Clist Library	06 I/O Error	8006 Clist Library	0007 TRAPV Instr
7 DOS Library		8007 DOS Library	0008 Privilege Viol
8 RAM Library		8008 RAM Library	0009 Trace
9 Icon Library		8009 Icon Library	000A Opcode %1010
10 Audio Device		8010 Audio Device	000B Opcode %1111
11 Console Device		8011 Console Dev	
12 Game Port Dev		8012 Game Port Dev	
13 Keyboard Dev		8013 Keyboard Device	
14 Track Disk Dev		8014 Track Disk Dev	
15 Timer Device		8015 Timer Device	
20 CIA Resource		8020 CIA Resource	
21 Disk Resource		8021 Disk Resource	
22 Misc Resource		8022 Misc Resource	
30 Bootstrap		8030 Bootstrap	
31 Workbench		8031 Workbench	

[This information was originally presented in the July/August issue of **The Amigan, Apprentice and Journeyman** (available from the AUG library), and is copyright 1986 by **The Amigans**.]

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A Matter of Control?

Hello to all the Amiga owners out there. Well here I am responding to Peter's plea for contributions! I, too, am sick of AmigaWorld, a lot of pretty pictures but no hard-core material. Ever picked up an issue of MacWorld? Its cheaper, too!

Well gripes to one side, this article presents you with the information you need to control and read the RS-232 port status lines from AmigaBasic. So what you say? Well some of you might find this really useful. I nearly died looking for this information in the Amiga Hardware Manual. After reading between the lines and playing around for a while I finally worked it all out! To begin with, you must have a proper serial cable with all the status lines connected (DTR, CD, DSR, RTS, CTS). Check your manual if you aren't too sure. Here is the table for the memory locations:

The serial port control lines are mapped at 12570628 decimal (0BF004 hex). The relevant bits are as follows:

Bit	Function	Decimal
3	DSR (from modem)	8
4	CTS (from modem)	16
5	CD (from modem)	32
6	RTS (to modem)	64
7	DTR (to modem)	128

(Even if you aren't a binary freak, all you need to know is the decimal values). Before you go poking around the serial port, you'll have to open the serial device. This is done with the basic statement:

```
OPEN "COM1:300,N,8,1" AS 1
```

Amigabasic will then load in the serial device handler in the devs directory. The command shown will set your serial port for 300 baud, No Parity, 8 data bits and 1 stop bit. (If that's not what you want, check your AmigaBasic Manual for details on other possible settings.)

Let's say that you wish to check if the modem has detected a carrier signal (on pin 8, CD). Try this:

```
10 A = PEEK(12570628) AND 32
20 IF A = 0 THEN PRINT "YIPPEE! THE MODEM IS ALIVE!"
30 GOTO 10
```

How about a way to make the modem hang up automatically when it is online? Most Auto-Answer type modems do this via pin 20 (Data Terminal Ready -DTR). If you have this pin connected on your serial cable and you have this type of modem, what will happen is this: When the serial device is closed, the modem will not function and when the serial device is opened the modem will come alive. This can be tested by using the Basic 'OPEN' statement and then the 'CLOSE' statement. So, how do we drive the DTR line high or low (+12v or -12v) to control the modem? Like this:

```
10 REM DISCONNECT MODEM WHEN ONLINE.
20 POKE 12570628, PEEK(12570628) AND 128 'DISABLE MODEM
30 POKE 12570628,128 'ENABLE MODEM
30 END
```

Line 30 is needed with a 'true' auto-answer modem so the modem can be restored before accepting another call. Usually this is the only time you need to do this, so the modem can 'turn off' and loose the carrier signal then reset. You can play with the other control lines in the same way. I have written a program which enables the 'ModemPhone 303' to be auto-dialled with the Amiga. This modem uses the RTS line (pin 4) to dial the modem using a pulse dialling sequence. If you have a one of these modems, you can download my program from the DOWNUNDER SOFTWARE BBS, on 429-5819.

Note for advanced users: Gizmoz Terminal has an option to send a 'TRUE' break on the serial port. This is a HARDWARE 'TRUE' break and is controlled from the PAULA CHIP (bit 11 register: AOCKONW). From Basic:

```
POKE 14676126,136 (BREAK ON)
```

Then:

```
POKE 14676126,8 (BREAK OFF)
```

Note: A normal 'TRUE' break is at least 300ms long.

For people that can't keep off Viatel, I have some good news. I have nearly finished an Amiga Videotex terminal emulator that will be available from LOGICWARE under the title of 'LOGI-TEX' for about \$40-\$50.

-- John Herks

The Music Studio: A review by David Albrecht

I saw a price I couldn't resist for "the Music Studio" in the latest AmigaWorld (\$36 from Northeastern Software), so I broke bad and bought it. This is a capsule review of its good and bad points from a weekends use. I read the manual and used it pretty extensively, so I think most of what I say herein is accurate, but there might be things that escaped my notice, or I overlooked.

To me, anyway, "the Music Studio" is easily worth the \$36. I've already had more fun with it than either Skyfox or Articfox. It does possess a great deal of catability. Some of the limitations, however, mean I will probably buy Deluxe Music when it becomes available.

Features:

- o A note entry system with standard note symbols.
- o Optional immediate feedback of the notes as the mouse is moved up and down the staff.
- o Playback of the entire or sections of the composition with or without the music scrolling in time to the music.
- o Support for multiple instrument sounds (up to 15 different) with up to 4 of them playing simultaneously.
- o Tracks, which allow "layering" the different instruments so that only some of the instruments will appear and be played back at a time.
- o MIDI interface support (I didn't use this, so I don't know the full extent of its capabilities).
- o A musical paintbox which allows the use of sized squares instead of the standard note notation (which translates when normal entry mode is selected).
- o Instant transposition of music between keys. Copying or movement of the music to other parts of the song.
- o Lyrics.
- o An instrument design screen which lets you "roll your own" by picking up to 7 of the first 31 harmonics and by giving the amplitude for each of those selected harmonics at up to 7 variable location time lines. Additionally, tremolo, vibrato, or a time line sustain point can be specified.
- o Includes a number of demo songs, many of which are somewhat rinky-dink, but a few are quite good (check out "invasion").
- o Ability to load/save pieces and sounds.

There are a good many features, but these are some of the highlights. Now for the detractions.

- o The notation system doesn't allow for the full range of notation required for professional quality sheet music. Especially notable is that the staffs for notes on the lower staff are not flipped down, notes on the same vertical line don't join, and neither is there support for the horizontal bars on the same values. The result is that the music tends to be somewhat busy with such over-repetition of flags.
- o Most of the more exotic notation such as slurs, trills, etc are not supported. This includes any non-quarter tuplet except for thirds (which is scored with a subscript 3).

- o Ties are supported, but they aren't associated with a given instrument. Therefore, they don't disappear when the notes they tie are deselected using tracks. Also, even though using tracks you can specify several instruments playing the same note, you can't then tie those notes to a following note for any but one of the instruments.
- o Some of the items that should be score specifiable seem to be global for the entire piece: time signature, key, dynamics and tempo.
- o The paintbox is fun, but the lack of ability to specify sharps and flats is a somewhat annoying limitation. They should have expanded the scale in this domain to have vertical slots for the sharps and flats.
- o It seems like sounds can only be saved as an entire map. I couldn't figure a way to transfer a single sound to a map in another composition.
- o Some way to merge a score selection as well as move it would be nice.
- o The different instruments are identified by color and some of them are quite light to be put on a white background. I was nearly going blind trying to score a piece that had a lot of light green notes. Mind you, this might be, to some degree, a function of my Amiga monitor, but I think sticking to darker colors would have been more sensible.
- o Sharps and flats and naturals don't carry over to notes in the same measure, they must be explicitly specified on every note.

Enough. This program does do a lot, and as an experimental composition tool, its a blast. As a performance tool, its not too bad. As a sheet music printing aid, its not too hot. If you are musically inclined, I recommend you at least see it.

-- David Albrecht

Product Review: External 3.5" Floppy Drive

At last. An external drive for my Amiga. No more disk swapping for CLI functions or data loading/saving operations. Not that there wasn't an external drive available before, but at \$599 for a genuine Commodore unit, I wasn't about to fork out that much hard earned cash for a luxury.

Peter Valkovic, alias P.M. Software had promised me a 100% compatible clone at a much reduced price as soon as he had some ready, and this was it. The VDrive is an external 3.5" floppy drive produced by P.M. Software as an alternative to the Commodore 1010 model. It is considerably smaller than its Commodore counterpart (190mm x 110mm x 60mm, ie about 2/3 the size), and, I'm assured, is actually better than the original. The drive mechanism used has a "head load solenoid" option fitted which positions the head onto the disk surface only when required (not all the time as in the Commodore unit), which increases the head and media life by 30-50% (manufacturers's figures). This sounds good for disks that cost \$5.50 or more each, not to mention commercial programs that cost hundreds of dollars.

The other good point is that the VDrive is 100% compatible with **Marauder**, unlike an increasing number of Commodore drives, as quite a few people (including me) have found out. It seems that Commodore are using two different drive mechanisms, and if you have the Matsushita type, then you'll have Marauder problems. A recent investigation of all the drives that Maxwells had in stock showed that they were all of this type.

Now for the best part: the price. At only \$420, you can afford THREE whole boxes of disks to go with it. The drive comes with a three month warranty, which includes an on the spot exchange for a new drive if you do encounter any problems. That shows confidence.

In a light beige case, similar in color to my Amiga, I am very pleased with my purchase, and am glad to say it has performed up to my expectations fully.

P.M. Software can be contacted on 749-4128 (after hours).

-- Mike Arntzen

Trim the Fat from your Workbench

Here is a SUGGESTION of how you might trim "the fat" from a Workbench diskette and create a CLI diskette. It assumes that you will be booting with the resultant diskette. If executed without change it will reduce disk usage of a 1.1 Workbench diskette from 91% to about 35%.

First, clear the utilities in the C directory that you will not use frequently:

```
delete c/install
delete c/format
delete c/status
delete c/edit
delete c/relabel
delete c/filenote
delete c/sort
delete c/loadwb
delete c/protect
delete c/say
```

Fonts may be eliminated entirely, unless your application uses them. The standard 60 and 80 column fonts are stored in ROM.

```
delete fonts all quiet
```

Likewise some devices can be removed unless your application needs them:

```
delete devs/clipboard.device
delete devs/narrator.device
```

Same thing goes for some of the libraries:

```
delete libs/mathtrans.library
delete libs/translator.library
delete libs/mathieeeedoubbas.library
delete libs/version.library
delete libs/diskfont.library
```

Each printer driver takes from 1k to 5k of disk, so get rid of all of them **except** the one for your printer: (This example assumes you are using the Epson:

```
delete devs/printers/qume lttrpro 20
delete devs/printers/cbm mps1000
delete devs/printers/diablo 630
delete devs/printers/diablo c-150
delete devs/printers/generic
delete devs/printers/brother hr-15x1
delete devs/printers/hp laserjet
delete devs/printers/okimate 20
delete devs/printers/alphacom pro101
delete devs/printers/diablo adv d25
delete devs/printers/epson jx-80
delete devs/printers/hp laserjet plus
```

Remove workbench specific demos and utilities:

```
delete .info
delete clock
delete clock.info
delete demos all quiet
delete demos.info
delete disk.info
delete system all quiet
delete system.info
delete utilities all quiet
delete utilities.info
delete trashcan all quiet
delete trashcan.info
delete empty all quiet
delete empty.info
```

Finally, either delete preferences, or move it to the C: directory so you can get to it from anywhere:

```
rename preferences c/Preferences
delete preferences.info
```

That's all. Now you've got plenty of space room on your workbench disk.

Contributions

Articles, papers, letters, drawings and cartoons are actively sought for publication in **AMIGA WORKBENCH**. It would be appreciated if contributions were submitted on disk, since that means they don't have to be re-typed! We have access to a wide range of computers, so we should be able to accept almost any type of disk, but AMIGA disks are certainly the easiest. Absolute deadline for articles is the last weekend of the month before the cover date. Contributions can be sent to:

The Editor, AUG, PO Box 109, North Balwyn, 3104

AUG Users Group Disks

Disks from the **AMIGA Users Group** Library are available on quality 3.5" disks for \$10 each including postage. Currently, the group holds 25 public domain volumes, sourced from the USA.

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The **AMIGA Users Group** is a non-profit, self-help group, consisting of people interested in the Commodore AMIGA computer and related topics.

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**Victoria College, Burwood Campus, in the
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(Melways map reference 61 85)**

Coming Meetings are:

**September 7th, October 12th
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Production Credits

This month's **AMIGA WORKBENCH** was edited by Peter Jetson. Equipment and software used was: TurboDOS S-100 computer, Diablo 630 printer, Gemini 10x printer, Wordstar and Fancy Font.

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September 1986 AMIGA WORKBENCH

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